

NOTES ON *APTEROMECHUS* FAUST OF AMERICA NORTH OF
MEXICO (COLEOPTERA: CURCULIONIDAE: CRYPTORHYNCHINAE)

DONALD R. WHITEHEAD

Systematic Entomology Laboratory, IIBIII, Agric. Res., Sci. and Educ. Admin., USDA, % U.S. National Museum of Natural History, Washington, D.C. 20560.

Abstract.—A generic diagnosis is given for the primarily Neotropical genus *Apteromechus*. The first key to the four currently recognized taxa in America north of Mexico is given, using simple, previously ignored characters. Distribution records are briefly summarized. A historical summary includes comments about past errors, present interpretations, and possible future problems associated with the systematics of these four taxa.

The cryptorhynchine genus *Apteromechus* Faust, largely Neotropical, is represented in America north of Mexico by four nominate taxa: *A. ferratus* (Say), *A. longus* (LeConte), *A. microstichus* Fall, and *A. texanus* Fall. Some of the characters previously used to distinguish them are superficial or difficult to use. I here give the first key to these four taxa, using some conspicuous but previously unexploited characters; and I append some additional notes. I do not attempt a detailed revision of the species, partly because generic limits are ill-defined and partly because it appears that study of Neotropical material not yet available will be needed to reach satisfactory conclusions.

RECOGNITION CHARACTERS FOR *APTEROMECHUS* FAUST

Kissinger's (1964) key to genera of North American Cryptorhynchinae does not work satisfactorily for *Apteromechus*. One species, *A. longus*, does key through rubric 29 to *Apteromechus*. Kissinger traced the other species to *Apteromechus* through couplets 31 and 33 as if the mandibles were prominent when closed. However, the mandibles are not prominent. These *Apteromechus* species trace more readily through couplet 31 to couplet 35, where distinguished from other genera by having the scutellum not or only minutely exposed and by having the pronotum sparsely rather than densely squamose. The following diagnosis distinguishes Nearctic *Apteromechus* from other Nearctic Cryptorhynchinae, but it is only a first approximation with respect to Neotropical members of the subfamily.

Diagnosis.—*Head*: Rostrum short, feebly curved to nearly straight, mandibles not prominent when closed; antenna inserted near middle of rostrum, funicle 7-segmented, club ovate and with distinct sutures; interocular distance varied from nearly as great as width of rostrum to much shorter; eyes partly exposed when head is in repose. *Pronotum*: Rounded at sides, deeply bisinuate at base, median lobe partly filling scutellar cavity; coarsely, closely punctate, not densely squamose; ocular lobes moderately reduced. *Scutellum*: Hidden or minutely exposed. *Elytra*: Stria 10 abbreviated, not extended beyond hind coxa; intervals 3, 5, and 7 varied from convex to feebly elevated to strongly carinate. *Legs*: Femora feebly unidentate ventrally, or front femur with tooth obsolete; in most species front femur with sharply defined, glabrous ventral sulcus in which both tibia and tarsus are received in repose; tibiae rounded at base externally, outer margin even, straight, not serrate; tibia 3 with apical comb formed of single row of spines, comb angulate or broken; in most species tarsi not dimorphic; claws free, simple. *Venter*: Rostral canal extended into mesosternum to point in line with front margin of middle coxae; mesosternum prominent, feebly emarginate; distance between middle coxae slightly to considerably less than apical width of rostrum; metasternum long, distance between middle and hind coxae greater than length of antennal club; metepisternal suture distinct, metepisternum moderately broad; abdominal ventrite 2 a little longer than 3 or 4 but much shorter than 3+4.

KEY TO *APTEROMECHUS* OF AMERICA NORTH OF MEXICO

1. Front femur without ventral sulcus, tarsus not received in repose; most specimens with scutellum minutely exposed *ferratus* (Say)
 - Front femur with glabrous ventral sulcus, tarsus received in repose; scutellum not exposed 2
2. Front and vertex densely punctate; middle coxae separated by distance much less than width of rostrum *longus* (LeConte)
 - Frons and vertex minutely, sparsely punctate, densely squamose immediately around eyes, surface alutaceous; middle coxae separated by distance nearly as great as width of rostrum 3
3. Ventrites 3 and 4 with punctures arranged in 1 or 2 nearly regular rows on each ventrite *texasus* Fall
 - Ventrites 3 and 4 with punctures more confused, at least in part arranged in 3 rows on each ventrite *microstichus* Fall

DISTRIBUTION RECORDS

Records are by state, using postal abbreviations, to facilitate use in the USDA "A catalog of the Coleoptera of America north of Mexico" now in preparation.

Apteromechus ferratus—eastern, not subtropical: AL, CT, DC, FL, GA, IL, LA, MI, NC, NJ, NY, OH, PA, SC, TN, VA.

Apteromechus longus—southeastern: AR, FL, TX.

Apteromechus microstichus—southeastern: FL, GA. Subtropical, extending northward to southeastern Georgia. A specimen in USNM labelled New York is suspect.

Apteromechus texanus—extreme southern Texas: TX. Subtropical; specimens from Tampico, Veracruz are probably conspecific with those from Brownsville.

DISCUSSION

Champion (1906) was first to recognize *Apteromechus* in the United States fauna. He cited a specimen labelled *Cryptorhynchus ferratus* from a series collected by H. F. Wickham at Brownsville, Texas, but I am convinced that this series was entirely composed of the subsequently described *Apteromechus texanus*.

Apteromechus, as presently understood, is somewhat heterogeneous. Probably, *Apteromechus* should remain defined broadly enough to include *A. ferratus*. However, *A. ferratus* lacks the specialized femoral sulcus characteristic of most other members of the genus, and I know of no other shared, derived character state that can be used to define the genus so broadly. Kissinger (1964) emphasized the peculiar divided comb of tibia 3 as characteristic of the genus, but this character needs extensive study. Examination of several Neotropical species leads me to conclude that the comb is composed of a single row of setae, in some species simply angulate rather than broken as Kissinger described for *A. ferratus* and *A. longus*.

The closely related taxa *A. microstichus* and *A. texanus* may be conspecific (Fall, 1925). I make no attempt to analyze this matter now, because there is a complex of closely related, poorly known forms in Mexico and Central America. Superficial differences among the various samples are minor, and geographically intermediate samples are needed to determine extent of variation.

Kissinger (1964) reassigned *Cryptorhynchus longus* to *Apteromechus*. This species is not closely allied with any other species I have examined, but it shares with *A. texanus*, *A. microstichus*, and most tropical species the peculiar, presumably synapotypic sulcus of the front femur.

ACKNOWLEDGMENTS

I thank T. L. Erwin (Smithsonian Institution), R. H. Foote, R. W. Hodges, and J. M. Kingsolver (Systematic Entomology Laboratory, USDA) for reviewing the manuscript.

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